

CLAIMS:

1. A soil-fumigant-containing solid material containing not less than 60 and not more than 85 weight % of a soil fumigant, not less than 0.5 and not more than 15 weight % of gelatin, not less than 0 and not more than 10 weight % of an inorganic mineral, not less than 1 and not more than 15 weight % of polysaccharide that reacts with a divalent or higher valent metal salt to thereby cause gelation and not less than 0.5 and not more than 20 weight % of water.

2. The soil-fumigant-containing solid material according to claim 1, wherein the soil fumigant is a soil fumigant having a boiling point of not less than 40°C and a vapor pressure of not less than 70 Pa/20°C.

3. The soil-fumigant-containing solid material according to claim 2, wherein the soil fumigant is one or more kinds of soil fumigants selected from chloropicrin, D-D and allyl isothiocyanate.

4. The soil-fumigant-containing solid material according to any one of claims 1 to 3, wherein the polysaccharide that reacts with a divalent or higher valent metal salt to thereby cause gelation is one or more kinds thereof selected from water-soluble alginate salt,

low methoxyl pectin and kappa-carrageenan.

5. A process for producing the soil-fumigant-containing solid material as described in claim 1 which comprises the
5 following steps (a) to (c):

(a) a step of producing an O/W type emulsion containing a soil fumigant of not less than 10 and not more than 85 weight % by stirring an aqueous solution of the polysaccharide that reacts with a divalent or higher
10 valent metal salt to thereby cause gelation, a soil fumigant, a gelatin and an inorganic mineral;

(b) a step of producing a gelated material by reacting the emulsion obtained in the step (a) with a divalent or higher valent metal salt; and

15 (c) a step of producing a soil-fumigant-containing solid material by drying the gelated material obtained in the step (b).

6. The process for producing the
20 soil-fumigant-containing solid material according to claim 5, wherein the soil fumigant is one or more kinds of soil fumigants selected from chloropicrin, D-D and allyl isothiocyanate.

25 7. The process for producing the soil-fumigant-containing solid material according to claim 5 or 6, wherein the polysaccharide that reacts with

a divalent or higher valent metal salt to thereby cause gelation is used in an amount of not less than 1 and not more than 15 weight % based on the soil fumigant.

5 8. The process for producing the
soil-fumigant-containing solid material according to any
one of claims 5 to 7, wherein the polysaccharide that
reacts with a divalent or higher valent metal salt to
thereby cause gelation is one or more kinds thereof
10 selected from water-soluble alginate salt, low methoxyl
pectin and kappa-carrageenan.

9. The process for producing the
soil-fumigant-containing solid material according to any
15 one of claims 5 to 8, wherein the gelatin is used in an
amount of not less than 0.5 and not more than 15 weight %
based on the soil fumigant.

10. The process for producing the
20 soil-fumigant-containing solid material according to any
one of claims 5 to 9, wherein the inorganic mineral is used
in an amount of not less than 0 and not more than 10 weight %
based on the soil fumigant.

25 11. The process for producing the
soil-fumigant-containing solid material according to any
one of claims 5 to 10, wherein water is contained in an

amount of not less than 0.5 and not more than 20 weight % based on the soil-fumigant-containing solid material when the gelated material obtained in the step (b) is dried.

5 12. A soil-fumigant-containing solid material produced according to the method in the step (c) as described in any one of claims 5 to 11.

10 13. A gelated material produced according to the method in the step (b) as described in any one of claims 5 to 10.

14. An O/W type emulsion produced according to the method in the step (a) as described in any one of claims 5 to 10.